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Type "F" Highway Crossing Gate Mechanism and Associated Material.

The new GRS Type "F" automatic highway crossing gate mechanism 59840-4 Gr. 1 has the same philosophy as that of our type "D" ie motor and gear train to operate the output shaft.

It is lighter in weight, approximately 240 lbs. as compared with the type D weight of 428 lbs. A large part of this weight reduction is due to the use of aluminum castings rather than cast iron.

The overall dimensions are approximately 20" x 20" x 15" for the type F and 25" x 22" x 17" for the type D.

It is capable of operating gate arms up to 25 ft. in length. It is not designed to operate a sidewalk arm. The clearing time should be approximately the same as the type D although actual time will be determined when a pilot run mechanism is available.

A complete installation will include an aluminum base, mast, cross-arm and signs. Existing type XC flashing signals will be supplied.

GATE ARM

The wood gate arm is fabricated, being made in 3 sections to facilitate shipment. It is easily assembled on location. An aluminum gate arm is also available.

The narrow profile of the arm offers less wind resistance when lowering or clearing. The roadside profile is essentially the same as that of the current gate arm.

Double face warning lamps mounted on the arm have molded rubber cases with an interior barrier to prevent unwanted light from passing through the plastic lens. The gate arm design is such that counterweight adjustment is required only for horizontal torque.

MECHANISM

The mechanism is designed for mounting on the roadside of the mast to obtain adequate clearance between gate arm and lamp units on existing installations.

A commercial 12 Volt DC permanent magnet field motor provides the power to operate the gate arm shaft. The brushes are located for easy inspection and maintenance. Gear ratio of motor to output shaft is 132 to 1.

Adjustable assemblies of Black Nitrile are provided to absorb the shock on the sector at end of gate arm travel.

Internal parts of the mechanism are removable without disturbing the gate arm shaft.

The type K2 control relay has been replaced with an electronic package.

GENERAL

Control cable will be attached to the mast with band-it straps to eliminate wire entrance and exit holes. The mast consists of a 4 or 5 inch aluminum pipe cut to length.

Four mechanisms and associated apparatus are in process of manufacture with completion scheduled for this month (June 1969). Tests will then be conducted before release for scheduled production.

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